

SHORT COMMUNICATION

**Reinstatement of *Enydra woollsii* F.Muell.
(Asteraceae: *Heliantheae*)**

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Enydra Lour. is a small genus of hydrophilous forbs that occurs in the tropics and subtropics of South America, Africa, Asia and Australia. The number of species is often quoted as ten (e.g. Stuessy 1977; Stanley & Ross 1986; Hajra *et al.* 1995). The accepted Old World species are *E. fluctuans* Lour., reported for south-east Asia, Australia and tropical Africa and *E. radicans* (Willd.) Lack, shared by tropical Africa and South America.

Enydra woollsii was described by F.Mueller from Australian material in 1863. Bentham (1867) placed *E. woollsii* into synonymy with *E. paludosa* (Reinw. ex Blume) A.DC., and *E. paludosa* was later relegated to synonymy with *E. fluctuans*. Descriptions and illustrations of Asian *Enydra fluctuans* (e.g. Soerjani *et al.* 1987; Hajra *et al.* 1995) strongly indicated to me that it was morphologically different to the Australian taxon. A comparison of herbarium specimens has confirmed this. The ecology of the Asian plant also appears different. While the Australian taxon is strictly terrestrial, *E. fluctuans* from Asia and Africa has been described as a “free-floating plant” (Lack 1980) or an “aquatic” (Hajra *et al.* 1995), and Nguyen (1993) stated that it “may sometimes clog water courses”. However, descriptions recording it “rooting at the nodes” (Lack 1980; Beentje & Ghazanfar 2005) suggest that it is partly dependant on soil substrate.

The Australian taxon is considered to be distinct from *Enydra fluctuans*, and the name *E. woollsii* is reinstated here for it.

The distribution of *Enydra fluctuans* is markedly disjunct from that of *E. woollsii*. It is notable that *E. fluctuans* extends no further

south than Java and no further east than Sulawesi, except for a naturalised occurrence in the Philippines reported by Merrill (1923). There is no known occurrence of *Enydra* in New Guinea (Koster 1979), nor in northern Queensland (Queensland Herbarium records). There is one specimen record at the Northern Territory Herbarium, collected near Darwin in 2002, from a plant apparently escaped from cultivation.

***Enydra woollsii* F.Muell.**, *Fragm.* 3: 139 (1863), as ‘*Enhydra Woollsii*’. **Type citation:** “In paludibus prope Manly Beach portus Jacksonii. W. Woolls”. **Type:** New South Wales. Manly Beach, *s.dat.*, *W.Woolls s.n.* (holo: MEL2159823).

Perennial forb to 100 cm across and 20 cm high, terrestrial; flowering stems prostrate or weakly ascending, well-branched, terete, solid, up to 3 mm diameter, not constricted at the nodes, glabrous. Leaves opposite, 3.5–8 cm long, 0.8–1.5 cm wide, lanceolate to narrowly-elliptic, with conspicuously serrated margins (3–7 teeth per side), base cuneate or attenuate, apex acute; petioles 2–5 mm long. Lamina with numerous yellowish oil glands, and sometimes with a few ciliate hairs along the midrib. Capitula axillary, solitary, many-flowered, radiate, peduncles 0–2 mm long. Involucral bracts 4, in two opposite pairs, the outer ones longer than the inner. Outer bracts 4–10 mm long, with a longitudinal midvein and a network of secondary veins, midvein glabrous or with a few ciliate hairs, apex acute; paleae c. 4 mm long, sheathing the florets, with sessile glands on the distal margin; ray florets female, greenish-yellow to yellow, 3-lobed, zygomorphic, glandular; stigma bifid. Disc florets yellow, 4 or 5-lobed. Achenes black, narrowly obovoid but curved on outer surface, 2.4–2.7 mm long, finely longitudinally striate, pappus absent.

Additional selected specimens examined: Queensland. WIDE BAY DISTRICT: Eli Creek, 5 km N of Happy Valley, Fraser Island, Nov 1994, *Bean 8072* (BRI). MORETON DISTRICT: Alexander Clark Memorial Park, Loganholme, Jan 1995, *Bean 8184* (BRI); end of Wallaby Way, Pimpama, May 2003, *Bean 20424* (BRI); near landing ground, Aug 1998, *Dowling W281 & Stephens* (BRI). **New South Wales.** Mangrove Creek, c. 3 km upstream from Back Channel off Clarence River, N of Maclean, May 2005, *Phillips 1299 & Phillips* (BRI); Seale Road, 9 km ESE of Kempsey, Dec 2007, *Bean 27131* (BRI).

Distribution and habitat: *Enydra woollsii* extends from near Bundaberg in Queensland to Sydney in New South Wales. It is confined to areas within a few kilometres of the coast, and on some adjacent islands. It inhabits poorly

drained flats beside rivers and creeks that may often be tidal. These areas may occasionally be inundated by fresh or brackish water. The plant communities in such places are often dominated by *Casuarina glauca* Sieber ex Spreng. or *Melaleuca quinquenervia* (Cav.) S.T.Blake. Sometimes it grows in swampy areas behind frontal beach dunes where *Casuarina equisetifolia* L. is present, and where some salt would be received from maritime winds.

Notes: *Enydra woollsii* differs from *E. fluctuans* in several significant ways, as outlined below in **Table 1**.

Table 1. Character differences between *Enydra fluctuans* and *E. woollsii*

	<i>Enydra woollsii</i>	<i>Enydra fluctuans</i>
Habitat	terrestrial	semi-aquatic to aquatic
Habit	flowering stems prostrate or weakly ascending	flowering stems more or less erect
Lower stems	solid, to 3 mm diameter	hollow, 5–10 mm diameter
Leaf base	cuneate	hastate
Leaf margins	strongly serrate, with 3–7 teeth per side	obscurely serrulate, with 10–20 teeth per side
Petioles	2–5 mm long	0–2 mm long
Outer involucrel bracts	4–10 mm long	11–20 mm long
Palea indumentum	sessile glands only	sessile glands and ciliate hairs

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